

Table 1**Federal obligations for research, experimental development, and R&D plant, by type of R&D, performer, and field of science and engineering: FYs 2016–20**

(Millions of current dollars)

Type of R&D, performer, and field	2016	2017	2018	2019	Preliminary 2020	% change 2016–17	% change 2017–18	% change 2018–19	Preliminary % change 2019–20
Obligations for R&D and R&D plant	118,274	121,627	133,278	146,801	155,644	2.8	9.6	10.1	6.0
R&D	115,833	118,975	129,425	142,424	150,885	2.7	8.8	10.0	5.9
Research	67,105	69,871	74,588	81,118	85,262	4.1	6.7	8.8	5.1
Field of science and engineering									
Computer sciences and mathematics	4,223	3,894	4,207	4,330	4,740	-7.8	8.0	2.9	9.5
Engineering	12,972	13,207	13,759	15,279	16,417	1.8	4.2	11.1	7.4
Environmental sciences	4,450	4,470	4,568	5,075	4,778	0.4	2.2	11.1	-5.8
Life sciences	32,045	34,090	36,994	38,304	40,665	6.4	8.5	3.5	6.2
Physical sciences	6,706	6,582	7,881	9,816	9,608	-1.9	19.8	24.5	-2.1
Psychology	2,021	2,081	2,327	2,754	2,933	3.0	11.8	18.3	6.5
Social sciences	1,227	1,027	1,039	1,156	1,018	-16.3	1.2	11.2	-11.9
Other sciences nec	3,461	4,521	3,812	4,405	5,102	30.6	-15.7	15.5	15.8
Basic research	32,293	33,272	36,195	40,017	41,755	3.0	8.8	10.6	4.3
Applied research	34,812	36,600	38,392	41,101	43,507	5.1	4.9	7.1	5.9
Experimental development	48,728	49,104	54,837	61,306	65,622	0.8	11.7	11.8	7.0
Performer									
Intramural ^a	32,351	30,990	35,953	39,313	42,405	-4.2	16.0	9.3	7.9
Industry	35,811	37,875	39,754	44,446	46,498	5.8	5.0	11.8	4.6
FFRDCs	11,423	11,694	12,456	14,691	15,354	2.4	6.5	17.9	4.5
Universities and colleges	28,199	28,963	31,534	34,001	36,092	2.7	8.9	7.8	6.2
Other nonprofit institutions	6,682	8,141	8,451	8,450	8,951	21.8	3.8	0.0	5.9
State and local governments	543	553	562	587	564	2.0	1.5	4.4	-3.8
Foreign	824	758	715	937	1,020	-8.1	-5.6	31.0	8.9
R&D plant	2,441	2,652	3,853	4,376	4,759	8.6	45.3	13.6	8.7

FFRDC = federally funded research and development center; nec = not elsewhere classified.

^a Intramural activities cover costs associated with the administration of intramural R&D programs, extramural R&D procurements by federal personnel, and intramural performance.**Note(s):**

Detail may not add to total because of rounding. Percentages are computed using actual dollars reported.

Source(s):

National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development.